

## **Quarterly Report**

**Agency/Organization:** The Great Basin Institute

**Project Name:** Desert Tortoise Range-Wide Monitoring (Year 5)

**Project Number:** 2015-GBI-1541B

**Reporting Period:** 1 January – 31 March 2020

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**QUESTION 1: What did you accomplish during this reporting period? How did these accomplishments help you reach the goal of your project? If relevant, what indicators or benchmarks were used to determine your progress?**

This quarterly report documents the status of the Desert Tortoise Range-Wide Monitoring Project (Year 5) conducted by the Great Basin Institute (GBI) for the first quarter of project number 2015-GBI-1541B; 1 January – 31 March 2020. GBI was contracted by the Clark County Desert Conservation Program (DCP) to conduct line-distance sampling (LDS) surveys and telemetry surveys to estimate the population of the Mojave desert tortoise (*Gopherus agassizii*) in pre-determined strata in Clark County, Nevada.

Project Goals and Objectives:

- Train monitors on project protocols, handling, and desert safety
- Complete assigned transect surveys and submit data as assigned in the deliverable schedule
- Complete telemetry surveys to correspond with transect surveys
- Collect monthly locations on telemetered tortoises
- Write reports as assigned in the deliverable schedule

Objectives Completed this Quarter:

- Recruited for 5 crew leads, 15 monitors, and 2 telemetry technicians
- Completed preseason preparations
- Planned the order that transects will be walked and created associated maps
- Telemetry observations were conducted at the Gold Butte, River Mountains, and Halfway Wash sites to collect monthly locations of telemetered tortoises.

**QUESTION 2: What, if any, problems were encountered? Briefly describe those problems and the manner in which they were dealt.**

In response to federal and state orders surrounding the spring 2020 COVID-19 pandemic, GBI suspended all project activity on 17 March, 2020. The survey staff were instructed to follow official pandemic guidelines and orders as they are disseminated and await further communication from GBI regarding resumption of the season.

**QUESTION 3: What, if any, proposed activities were not completed? Briefly describe those activities, the reasons they were not completed and your plans for carrying them out.**

In response to the COVID 19 pandemic, all field activities including training were suspended effective 17 March 2020. Training activities include overviews of GBI protocol, desert safety, survey protocol, and tortoise handling. GBI plans to carry out all training activities upon resumption of the season, which is tentatively set for 20 April, 2020.

**QUESTION 4: What is the calculated percent of work completed?**

Project activities for this quarter began on 1 January, 2020. It is estimated that 10% of the project has been completed for year 5 at this time.

**QUESTION 5: Do you foresee any upcoming problems with future project activities? If so, how do you propose to overcome those problems?**

Upcoming problems with completing project activities are a direct outcome of the current suspension and resulting abbreviated season. GBI is taking the following action to address these problems and ensure completion of all project activities:

- GBI will work with project partners to expedite training activities and conduct them remotely during the suspension period, where appropriate.
- GBI will extend the monitoring season to 29 May, 2020.
- GBI will hire additional technicians to assist in completing assigned transects during the monitoring season.
- GBI will extend the work week for monitoring technicians throughout the season, as necessary.

**QUESTION 6: Is there anything else you want to tell the DCP about this project?**

LDS surveys for this project consist of two-person teams walking 12-kilometer transects in a single file, separated by 25 meters between the two team members. All transects are square (3 kilometers on each side) and walked in cardinal directions, unless reflection is required due to human-made obstacles (private property, major highways, etc.) or stratum boundaries. To assure that transects are walked on the assigned bearings, waypoints are taken every 500 meters. When either a live or deceased tortoise is sighted, the team makes a series of measurements from the transect line to the tortoise. These measurements are used in data analysis. Size, sex, and a simple body condition assessment are recorded for each tortoise. All tortoises are handled with minimal contact by one individual in the team wearing single-use gloves. When possible, all live tortoises will be marked using a paper tag with a unique number provided by USFWS.

Telemetered tortoises are monitored using a VHF receiver and directional antenna. Information on location and behavior is collected on each individual between two and four times per day, every day that transect surveys take place. Telemetry technicians will change sites as transect survey locations change.

All data are recorded in the field on paper datasheets and electronically using Google Nexus 5X smart-phone devices running Android OS. Data are downloaded into a master database each week and assessed for consistency and errors.

**QUESTION 7: What was produced during the reporting period?**

GBI updated the collection database, planned the order in which transects would be walked, and created maps packets for each transect. GBI also recruited, hired, and began training five crew leads, 15 monitors, and two telemetry technicians during this reporting period.

**Please report on the status of each Milestone and Deliverable, indicate whether they are not started, in progress, or completed and provide comments on the status as necessary**

<b>Date Due</b>	<b>Deliverable/ Milestone #</b>	<b>Deliverable / Milestone Title</b>	<b>Completed</b>
December 5, 2019	M20	Purchase Order Award and Mobilization	Yes
January 5, 2020	D42	Quarterly Report (December 5, 2019 – December 31, 2019)	Yes
March 30, 2020	M21	Training	In progress
April 5, 2020	D43	Quarterly Report (January 1, 2020 – March 31, 2020)	Yes
April 6, 2020	M22	Begin Field Work	
April 15, 2020	D44	Digital Data upload	
April 29, 2020	D45	Digital Data upload	
May 13, 2020	D46	Digital Data upload	
May 27, 2020	D47	Digital Data upload	
May 30, 2020	M23	Completion of Gold Butte Survey	
May 30, 2020	M24	Completion of Field Work	
June 2, 2020	D48	Digital Data Upload (If Necessary)	
June 11, 2020	D49	Final Project Data	
June 17, 2020	M25	Annual Debriefing Meeting	
July 5, 2020	D50	Quarterly Report (April 1, 2020 – June 30, 2020)	
July 30, 2020	D51	Final Report	
August TBD, 2020	D52	2020 Annual Project Review Presentation (if requested)	
September 15, 2020	M26	Receipt Submittal (If Necessary)	
October 5, 2020	D53	Quarterly Report (July 1, 2020 – September 30, 2020)	
October 15, 2020	D54	Final Project Review Summary and Project Claim Release	
December 4, 2020	NA	Project Closeout	